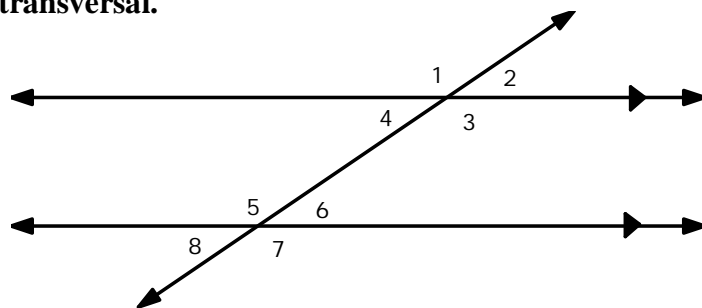


# SEMESTER 1 FINAL REVIEW WORKSHEET #2

## CHAPTER 3 – PARALLEL & PERPENDICULAR LINES

For Questions 1-10, use the following parallel lines and transversal.

- $\angle 4$  and \_\_\_\_\_ are alternate interior angles.
- $\angle 4$  and \_\_\_\_\_ are consecutive interior angles.
- $\angle 4$  and \_\_\_\_\_ are corresponding angles.
- $\angle 4$  and \_\_\_\_\_ are vertical angles.

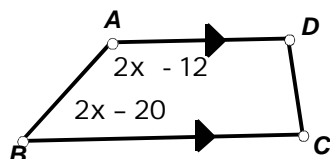


- If  $m\angle 1 = 129^\circ$ , find  $m\angle 7$ .  $m\angle 7 =$  \_\_\_\_\_
- If  $m\angle 4 = 33^\circ$ , find  $m\angle 6$ .  $m\angle 6 =$  \_\_\_\_\_
- If  $m\angle 5 = 137^\circ$ , find  $m\angle 8$ .  $m\angle 8 =$  \_\_\_\_\_
- If  $m\angle 2 = 129^\circ$ , find  $m\angle 6$ .  $m\angle 6 =$  \_\_\_\_\_
- When lines are parallel, name all of the angles that are congruent to  $\angle 1$ . \_\_\_\_\_
- When lines are parallel, name all of the angles that are supplementary to  $\angle 1$ . \_\_\_\_\_

- Find the value of  $x$  and the measure of  $\angle B$ .

- a.  $x =$  \_\_\_\_\_

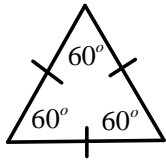
- b.  $m\angle B =$  \_\_\_\_\_



## CHAPTER 4 – TRIANGLES

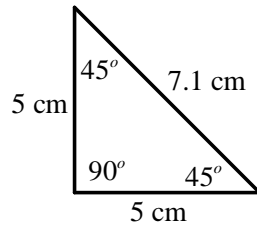
- The three angles of a triangle measure  $(2x + 5)^\circ$ ,  $(3x - 7)^\circ$ , and  $(x + 14)^\circ$ . Find the value of  $x$ .
- The two base angles of an isosceles triangle measure  $(2x + 15)^\circ$  and  $(5x - 33)^\circ$ , find the measure of the vertex angle.
- What are the 3 ways that we can classify a triangle according to its sides?
- What are the 4 ways that we can classify a triangle according to its angles?

16. Classify each triangle below by its sides and angles



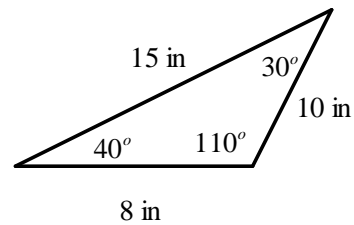
sides \_\_\_\_\_

angles \_\_\_\_\_



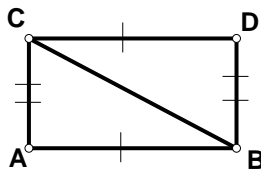
sides \_\_\_\_\_

angles \_\_\_\_\_



sides \_\_\_\_\_

angles \_\_\_\_\_



17. What postulate or theorem would you use to prove the triangles congruent?

17. \_\_\_\_\_

18. Complete the congruence statement.

18.  $\triangle ABC \cong$  \_\_\_\_\_

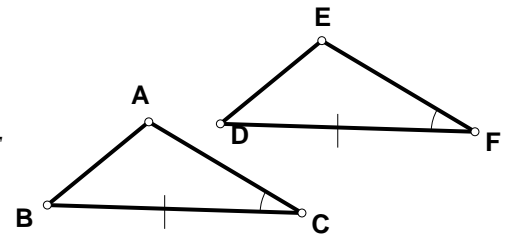
Look at the diagram for questions 19-20

19. What additional information would be needed to prove  $\triangle ABC \cong \triangle EDF$  using SAS?

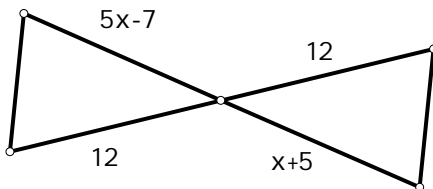
\_\_\_\_\_

20. What additional information would be needed to prove  $\triangle ABC \cong \triangle EDF$  using ASA?

\_\_\_\_\_



21. For what value of  $x$ , will the two triangles be congruent by SAS?



25.  $x =$  \_\_\_\_\_

22. What does CPCTC stand for? \_\_\_\_\_